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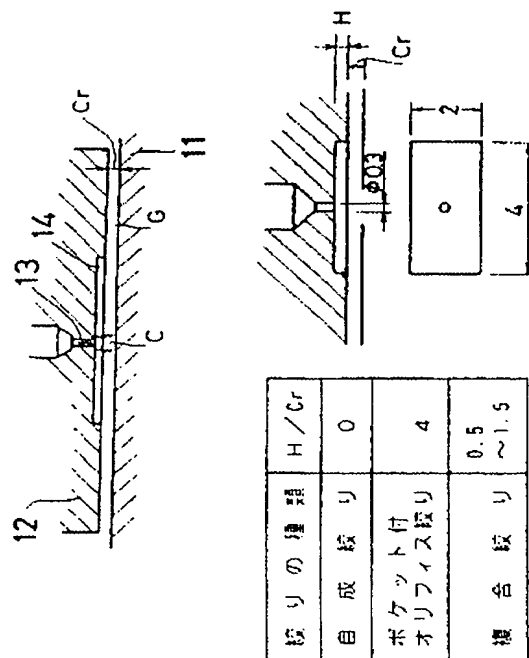
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APPLICANT : KURODA PRECISION IND LTD;

INVENTOR : HAYASHI TAKASHI;

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TITLE : STATIC-PRESSURE AIR BEARING



ABSTRACT : PURPOSE: To heighten a spring constant so as to hold sufficient stability by setting the depth of a pocket to be thin to the same degree as a shaft gap, and forming an autogeneous throttle inside the pocket.

CONSTITUTION: A complex throttle system static-pressure air bearing is provided with a shaft 11, a bearing body 12 and a nozzle 13. The depth of a pocket 14 continued from the nozzle 13 is set to be thin enough for its outogeneous throttling action to function. The ratio of pocket depth H to the size Cr of a shaft gap G is set to be within the range of $H/Cr=0.5-1.5$. In this case, the maximum spring constant value and a high damping coefficient can be obtained. The spring constant can be thus heightened to maintain sufficient stability.

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